Natural Resource Information System,

Montana Animal

Species of Concern

July 2006

Montana Fish,

Introduction

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This report is produced jointly by the Montana Natural Heritage Program (MTNHP) and Montana Department of Fish, Wildlife, and Parks (MFWP). Montana Animal **Species of Concern** are native Montana animals that are considered to be "at risk" due to declining population trends, threats to their habitats, and/or restricted distribution. Also included in this report are *Potential* Animal Species of Concern — animals for which current, often limited, information suggests potential vulnerability or for which additional data are needed before an accurate status assessment can be made. Designation of a species as a Montana Animal Species of Concern or Potential Animal Species of Concern is not a statutory or regulatory classification. Instead, these designations provide a basis for resource managers and decision-makers to direct limited resources to priority data collection needs and address conservation needs proactively

Status determinations are made by MTNHP and MFWP biologists in consultation with representatives of the Montana Chapter of the Wildlife Society, the Montana Chapter of the American Fisheries Society and other experts. The process for evaluating and assigning status designations uses the Natural Heritage Program ranking system, described below, which forms the basis for identifying Montana Species of Concern.

This report identifies 123 vertebrate and 73 invertebrate Species of Concern (SOC). Another 34 vertebrates and 56 invertebrates are identified as Potential Species of Concern (PSOC). See the animal group summary

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table below for totals by animal group. Four species included on the 2004 SOC report have been dropped from consideration because taxonomic research determined that these species designations are not valid: Flathead Pondsnail (Stagnicola erodi); Largemouth Pondsnail (Stagnicola erodiana); Mountain Marshsnail (Stagnicola montanensis); and Shorthead Sculpin (Cottus confusus). Russell's Mantleslug (Udosarx lyrata russelli) was also dropped from consideration because it is not presently distinguishable from the Lyre Mantleslug (*Udosarx lyrata*). One invertebrate species, Fir Pinwheel (Radiodiscus abietum) has been down ranked to a PSOC as a result of recent survey records. Four vertebrate species are new to this SOC report as a result of the documentation indicated: Northern Short-tailed Shrew (Blarina brevicauda) - restricted distribution; Western Spotted Skunk (Spilogale gracilis) – rarity and growing evidence for declines; Idaho Giant Salamander (Dicamptodon aterrimus) – restricted distribution; and native Lake Trout (Salvelinus namaycush) – declining population trends, threats, and restricted distribution. Eighteen invertebrate species are new to this SOC report (1 freshwater sponge, 2 slugs, 1 crayfish, 8 millipedes, and 6 insects) as a result of recent documentation of rarity, endemism, or declines. Five invertebrate species are new to this PSOC report (1 freshwater sponge, 2 slugs, and 2 insects) as a result of recent documentation of rarity and/or restricted distribution. The large number of invertebrate additions to this report are a result of thorough review of the scientific literature, collection records, and recent systematic surveys for these invertebrate groups. Other invertebrate groups

SPECIES TOTALS BY ANIMAL GROUP Species of Concern

Maiiiiiais	
Birds	60
Reptiles	9
Amphibians	
Fish	
Invertebrates	73
Potential Species of Concern	
Mammals	8
Birds	18
Fish	8
Invertebrates	56

HABITAT ASSOCIATION SUMMARY FOR ALL SPECIES OF CONCERN AND POTENTIAL SPECIES OF CONCERN

Streams/Rivers/Lakes	27%
Wetlands	20%
Sagebrush/Grassland	14%
Conifer Forest	13%
Riparian Forest	7%
Other/Generalist	6%
Alpine	5%
Rock Outcrop	
Caves	

(e.g., earthworms, centipedes, spiders) deserve similar attention, but due to the amount of time required, systematic reviews of the status of these groups will have to be dealt with in future updates.

In order to make this report more useful, we have added habitat associations for each species and summarize the percentage of animal SOC and PSOC that are dependent on major habitat types on front and back pages.

HERITAGE PROGRAM RANKS

The international network of Natural Heritage Programs employs a standardized ranking system to denote global and state status. Each species is given a global (G) rank, denoting range-wide status, and a state (S) rank for its status in Montana. Status ranks range from 1 (greatest concern) to 5 (least concern). Global ranks are assigned by scientists at NatureServe (the international affiliate organization for the heritage network) in consultation with biologists in the natural heritage programs and other taxonomic experts. State ranks are determined jointly by MTNHP and MFWP biologists, in consultation with the Montana Chapter of the Wildlife Society, the Montana Chapter of the American Fisheries Society and other experts. Among other things, the combination of global and state ranks often helps describe the proportion of a species' range and/or total population occurring in Montana. For instance, a rank of G3 S3 often indicates that Montana comprises most or a very significant portion of an animal's total population. In contrast, an animal ranked G5 S1 often occurs in Montana at the periphery of its much larger range; thus, the state supports a relatively small portion of its total population.

What Species are Included in this Report

Montana Species of Concern are defined as vertebrate animals with a state rank of S1, S2, or S3. Vertebrate species with a rank indicating uncertainty (SU) or a "range rank" extending below the S3 cutoff (e.g., S3S4) are considered Potential Species of Concern.

Because documentation for invertebrates is typically less complete than for vertebrates, only those ranked S1 or S2 are included as SOC. Invertebrates with a range rank extending below S2 (e.g., S2S3) are included as SOC only if their global ranks are G1, G2, or G3 or if experts agree their occurrence in Montana has been adequately documented. All other invertebrates with global ranks other than G1, G2, or G3 and with state ranks below S2 or range ranks extending below S2 (e.g., S3S4) are treated as Potential Species of Concern.

How Species are Ranked

In 2004 we began implementing a more rigorous methodology with more consistent and quantifiable criteria to assign status ranks. The goal is to improve the accuracy of ranks and better document the basis for each rank. A

more rigorous and well-documented ranking procedure is important to a variety of agencies with responsibilities to manage wildlife populations.

This new approach to assessing species' status is based on methods developed by NatureServe (Regan et al. 2004). These criteria include population size, area of occupancy in Montana, short and long-term trends, threats, inherent vulnerability, and specificity to environment. Based on these factors, a preliminary rank is calculated and is reviewed by key experts.

It is important to note that while the ranking process has changed, the definitions and the fundamental criteria remain the same. The principle difference is that criteria are now being applied in a more rigorous and consistent manner. Detailed documentation of the criteria and assessment process are available on the MTNHP website at http://mtnhp.org/animal/2004_SOC_Criteria.pdf. This status assessment process was completed for all of Montana's amphibian, reptile and mammal species in 2004. Bird, fish, and invertebrate species will be systematically assessed in future revisions.

Definitions of Ranks used in this Report

- G1/S1 At high risk because of extremely limited and/or rapidly declining numbers, range, and/or habitat, making it highly vulnerable to global extinction or extirpation in the state.
- G2/S2 At risk because of very limited and/or declining numbers, range, and/or habitat, making it vulnerable to global extinction or extirpation in the state.
- G3/S3 Potentially at risk because of limited and/or declining numbers, range, and/or habitat, even though it may be abundant in some areas.
- G4/S4 Uncommon but not rare (although it may be rare in parts of its range), and usually widespread.

 Apparently not vulnerable in most of its range, but possibly cause for long-term concern.
- G5/S5 Common, widespread, and abundant (although it may be rare in parts of its range). Not vulnerable in most of its range.
- GU/SU Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
- GH/SH Historically occurred; may be rediscovered.
- GX/SX Believed to be extinct; historical records only.

Other codes and rank modifiers:

B/N State rank modifier indicating breeding for a migratory species; B = Breeding. N = Nonbreeding.

HYB A global rank denoting a hybrid.

M A state rank modifier indicating migratory stopover status for a species.

Q A global rank modifier indicating that there are taxonomic questions or problems.

T Denotes the rank for a subspecific taxon (subspecies or population); appended to the global rank for the full species. The S Rank following applies to the subspecific taxon.

HOW TO READ THIS REPORT

Species are listed alphabetically by common name within major groups, which are organized in taxonomic order from mammals to invertebrates. Species with names **bolded** and **underlined** are new additions to the Species of Concern or Potential Species of Concern report. Species downgraded from Concern to Potential Concern are not shown as new. Global or state ranks are **bolded** and **underlined** if they have changed from the previous report.

Current federal agency status designations are also provided, including legal status under the U.S. Endangered Species Act, and administrative designations of the U.S. Forest Service and Bureau of Land Management. Conservation and inventory status of species in Montana's Comprehensive Fish and Wildlife Conservation Strategy (MFWP 2005) are also provided.

Federal Status Designations

FISH AND WILDLIFE SERVICE

This column indicates status under the federal Endangered Species Act of 1973 based on categories defined by the U.S. Fish and Wildlife Service (16 U.S.C.A. §1531-1543 (Supp. 1996)).

E Listed Endangered

T Listed Threatened

PE Proposed Endangered

PT Proposed Threatened

XN Experimental Nonessential

C Candidate (species for which the U.S. Fish and Wildlife Service has sufficient information on biological status and threats to propose listing as threatened or endangered)

FOREST SERVICE

The U.S. Forest Service Manual (2670.22) defines Sensitive species on Forest Service lands as those for which

population viability is a concern as evidenced by significant downward trend in population or a significant downward trend in habitat capacity. The Regional Forester (Northern Region) designates Sensitive species on National Forests in Montana. These designations were last updated in 2004 and they apply only on USFS-administered lands.

Note: The U.S. Forest Service is implementing new planning regulations (2005) which will lead to changes in the identification of "special status" species on National Forest lands. For the time being, Sensitive species will continue to be recognized for Region 1 under existing agency policy, but in addition many of the newly revised Forest Plans may also identify USFS Species of Concern and USFS Species of Interest as outlined below. During this transition period, a "USFS" designation in the federal status column refers to the status under the existing Sensitive Species policy.

<u>USFS Species-of-Concern</u> (FSH 1909.12, 43.22b) are species for which the Responsible Official determines management actions may be necessary to prevent listing under the Endangered Species Act (ESA). The Responsible Official, as appropriate, may identify the following plant and animal species, including macro-lichens, as species-of-concern:

- Species identified as proposed and candidate species under the ESA.
- 2. Species with ranks of G-1 through G-3 on the NatureServe ranking system.
- 3. Infraspecific (subspecific) taxa with ranks of T-1 through T-3 on the NatureServe ranking system.
- 4. Species that have been petitioned for federal listing and for which a positive "90-day finding" has been made (a 90-day finding is a preliminary finding that substantive information was provided indicating that the petition listing may be warranted and a full status review will be conducted).
- Species that have been recently delisted (these include species delisted within the past five years and other delisted species for which regulatory agency monitoring is still considered necessary).

<u>USFS Species-of-Interest</u> (FSH 1909.12, 43.22c) are species for which the Responsible Official determines that management actions may be necessary or desirable to achieve ecological or other multiple-use objectives. The Responsible Official may review the following sources for potential species-of-interest:

- 1. Species with ranks of S-1, S-2, N1, or N2 on the NatureServe ranking system.
- 2. State listed threatened and endangered species that do not meet the criteria as species-of-concern.
- Species identified as species of conservation concern in State Comprehensive Wildlife Strategies.
- 4. Bird species on the U.S. Fish and Wildlife Service Birds of Conservation Concern National Priority list

- (for the U.S. portion of the northern Rockies that occur on National Forest system lands).
- 5. Additional species that valid existing information indicates are of regional or local conservation concern (this includes all Forest Service Northern Region sensitive species) due to factors that may include:
 - a. Significant threats to populations or habitat.
 - b. Declining trends in populations or habitat.
 - c. Rarity
 - d. Restricted ranges (for example, narrow endemics, disjunct populations, or species at the edge of their range).
- 6. Species that are hunted or fished and other species of public interest. Invasive species may also be considered.

BUREAU OF LAND MANAGEMENT

The BLM 6840 Manual defines the status of Sensitive species on Bureau of Land Management lands as those that are proven imperiled in at least part of their ranges and are documented to occur on BLM lands. These designations were last updated in 2004 and they apply only on BLM-administered lands.

MONTANA FISH, WILDLIFE, AND PARKS COMPREHENSIVE FISH AND WILDLIFE CONSERVATION STRATEGY

Montana's Comprehensive Fish and Wildlife Conservation Strategy (MFWP 2005) identifies fish and wildlife species that are in greatest need of conservation as follows:

- Tier I: Greatest conservation need. Montana Fish, Wildlife & Parks has a clear obligation to use its resources to implement conservation actions that provide direct benefit to these species, communities, and focus areas.
- Tier II: Moderate conservation need. Montana Fish, Wildlife & Parks could use its resources to implement conservation actions that provide direct benefit to these species, communities, and focus areas.
- Tier III: Lower conservation need. Although important to Montana's wildlife diversity, these species, communities, and focus areas are either abundant and widespread or are believed to have adequate conservation already in place.
- Tier IV: Species that are non-native, incidental, or on the periphery of their range and are either expanding or very common in adjacent states.

The Comprehensive Fish and Wildlife Conservation Strategy (MFWP 2005) also identifies individual species and taxonomic groups that are in need of inventory. Each species' conservation and inventory tiering status is indicated in roman numerals before and after a dash, respectively.

ADDITIONAL INFORMATION

Our internet-based Field Guide to Montana's Animals provides information on over 600 vertebrate species, including Species of Concern and Potential Species of Concern. The Field Guide offers a broad range of information, including species identification, range, habitat, reproduction, food habits, ecology, management, and references. For many Species of Concern, the Field Guide provides extensive detailed information from the databases of MTNHP. Photos and call recordings are provided where available.

The Field Guide can be accessed through the Natural Heritage Program web page at mtnhp.org and the Montana Fish, Wildlife and Parks web page at www.fwp.mt.gov. The MTNHP website also offers access to a variety of bird observations (other animal species will soon be added), statewide aerial photos, topographic maps, and land ownership information through its new Natural Heritage Information Portal where anyone can enter and access statewide bird observation data.

The NatureServe Explorer website provides information on the status of species throughout North America. It can be found at www.natureserve.org/explorer or from a link on the MTNHP website. This application includes status maps showing the state/provincial ranks across each species' range, assembled from the network of natural heritage programs. Note that updated ranks for Montana animals will not be immediately reflected in NatureServe Explorer since this information is only exchanged on an annual basis.

More detailed data on the occurrence of Montana Species of Concern are available on request from MTNHP, using the "Request Data" link on the website or by contacting appropriate staff. This report is available in electronic format on the MTNHP website under "Reports." Hard copies are available on request from MTNHP or from MFWP (see contact information on back cover).

Comments and Feedback

We welcome comments and suggestions, including recommendations for changes in species' status and new observation data. All comments and information should be directed to the MTNHP Senior Zoologist, Bryce Maxell, at bmaxell@mt.gov or at the address below. Please submit observations using forms available on the MTNHP website (select "Animals" then "Submit Observation"). Bird observation data can be submitted through the Natural Heritage Information Portal on the new Montana Bird Distribution website.

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SPECIES OF CONCERN

Vertebrates		Global	State	Federal	CFWCS
Common Name	Scientific Name	Rank	Rank	Status	Status Habitat
Mammals					
American Bison (free-ranging herds)	Bos bison	G4	S2		I - III grasslands
Arctic Shrew	Sorex arcticus	G5	S1S3		II - I wetlands
Black-footed Ferret	Mustela nigripes	G1	S1	USFWS - E, XN	I - III grasslands
Black-tailed Jack Rabbit	Lepus californicus	G5	S2		II - I sagebrush/grasslands
Black-tailed Prairie Dog	Cynomys Iudovicianus	G3G4	S3	USFS, BLM	I - III grasslands
Brown Bear	Ursus arctos	G4	S2S3	USFWS - T	I - III generalist
Canada Lynx	Lynx canadensis	G5	S3	USFWS - T	I - III subalpine conifer forests
Dwarf Shrew	Sorex nanus	G4	S2S3		II - II rocky habitats
Eastern Red Bat	Lasiurus borealis	G5	S2S3		II - I riparian cottonwoods
Fisher	Martes pennanti	G5	S3	USFS, BLM	II - II mixed conifer forests
Fringed Myotis	Myotis thysanodes	G4G5	S3	BLM	II - II riparian & dry mixed conifer forests
Gray Wolf	Canis lupus	G4	S3	USFWS - E (N), XN (S)	I - III generalist
Great Basin Pocket Mouse	Perognathus parvus	G5	S2S3	USFS, BLM	I - II sagebrush/grasslands
Hispid Pocket Mouse	Chaetodipus hispidus	G5	S1S3		II - I grasslands
Meadow Jumping Mouse	Zapus hudsonius	G5	S2	BLM	I - I wetlands
Merriam's Shrew	Sorex merriami	G5	S3		II - II sagebrush/grasslands
North American Wolverine	Gulo gulo luscus	G4T4	S3	USFS, BLM	II - III conifer forests
Northern Bog Lemming	Synaptomys borealis	G4	S2	USFS, BLM	I - I wetlands
Northern Myotis	Myotis septentrionalis	G4	S2S3	BLM	II - I riparian & mixed forest types
Northern Short-tailed Shrew	Blarina brevicauda	G5	S1S3		- wetlands
Pallid Bat	Antrozous pallidus	G5	S2	USFS, BLM	I - I arid land rock outcrops
Preble's Shrew	Sorex preblei	G4	S3	BLM	II - II sagebrush/grasslands
Pygmy Rabbit	Brachylagus idahoensis	G4	S3	USFS, BLM	I - II sagebrush
Spotted Bat	Euderma maculatum	G4	S2	USFS, BLM	I - I arid land rock outcrops
Swift Fox	Vulpes velox	G3	S3	BLM	II - II grasslands
Townsend's Big-eared Bat	Corynorhinus townsendii	G4	S2	USFS, BLM	I - I caves in forested habitats
Uinta Chipmunk	Tamias umbrinus	G5	S3		II - I high elevation conifer forests
Western Spotted Skunk	Spilogale gracilis	G5	S1S3		II - I shrublands/woodlands, rock outcrops
White-tailed Prairie Dog	Cynomys leucurus	G4	S1	USFS, BLM	I - III sagebrush/grasslands
Birds					
Alder Flycatcher	Empidonax alnorum	G5	S1B		II - I wetlands/shrublands
American White Pelican	Pelecanus erythrorhynchos	G3	S3B		III - III lakes
Baird's Sparrow	Ammodramus bairdii	G4	S2B	BLM	II - III grasslands
Bald Eagle	Haliaeetus leucocephalus	G5	S3		I - III riparian forest

		Global	State	Federal	CFWCS
Common Name	Scientific Name	Rank	Rank	Status	Status Habitat
Birds (continued)					
Barn Owl	Tyto alba	G5	S1		IV - I sagebrush/grasslands
Black Rosy-Finch	Leucosticte atrata	G4	S2		II - I alpine
Black Swift	Cypseloides niger	G4	S3B		II - I cliffs/waterfalls
Black Tern	Chlidonias niger	G4	S3B	BLM	I - II wetlands
Black-and-white Warbler	Mniotilta varia	G5	S2S3B		II - I deciduous forests
Black-backed Woodpecker	Picoides arcticus	G5	S2	USFS, BLM	I - III conifer forest burns
Black-crowned Night-heron	Nycticorax nycticorax	G5	S3B		II - I wetland/lake w/ emergent vegetation
Blue-gray Gnatcatcher	Polioptila caerulea	G5	S1B	USFS, BLM	II - I utah juniper
Bobolink	Dolichonyx oryzivorus	G5	S2B		III - III moist grasslands
Boreal Chickadee	Poecile hudsonica	G5	S1S2		II - II spruce fir forests
Brewer's Sparrow	Spizella breweri	G5	S2B	BLM	II - III sagebrush
Broad-tailed Hummingbird	Selasphorus platycercus	G5	S1B		II - II montane shrublands/woodlands
Burrowing Owl	Athene cunicularia	G4	S2B	USFS, BLM	I - III grasslands
Caspian Tern	Hydroprogne caspia	G5	S2B		II - II large rivers and lakes
Cassin's Kingbird	Tyrannus vociferans	G5	S2B		II - II grasslands
Chestnut-collared Longspur	Calcarius ornatus	G5	S3B		III - III grasslands
Columbian Sharp-tailed Grouse	Tympanuchus phasianellus columbianus	G4T3	S1		I - I grasslands
Common Loon	Gavia immer	G5	S2B	USFS, BLM	I - III mountain lakes w/ emergent veg.
Common Tern	Sterna hirundo	G5	S3B		II - II large rivers and lakes
Dickcissel	Spiza americana	G5	S1S2B	BLM	II - II tall grasslands
Eastern Bluebird	Sialia sialis	G5	S2B		II - I prairie woodlands
Ferruginous Hawk	Buteo regalis	G4	S2B	BLM	II - III sagebrush/grasslands
Flammulated Owl	Otus flammeolus	G4	S3B	USFS, BLM	I - III conifer forest
Forster's Tern	Sterna forsteri	G5	S2B		II - II wetlands
Franklin's Gull	Larus pipixcan	G4G5	S3B	BLM	II - II wetland/lake w/ emergent vegetation
Grasshopper Sparrow	Ammodramus savannarum	G5	S3B		II - III grasslands
Gray-crowned Rosy-Finch	Leucosticte tephrocotis	G5	S2B, S5N		II - II alpine
Great Gray Owl	Strix nebulosa	G5	S3	BLM	II - III conifer forest
Greater Sage-Grouse	Centrocercus urophasianus	G4	S3	USFS, BLM	I - III sagebrush
Harlequin Duck	Histrionicus histrionicus	G4	S2B	USFS, BLM	I - III mountain streams
Interior Least Tern	Sternula antillarum athalassos	G4T2Q	S1B	USFWS - E	I - III large prairie rivers
Lark Bunting	Calamospiza melanocorys	G5	S3B		II - III sagebrush/grasslands
Le Conte's Sparrow	Ammodramus leconteii	G4	S1S2B	BLM	II - I prairie wetlands
Lewis's Woodpecker	Melanerpes lewis	G4	S2B		II - II riparian forest
Loggerhead Shrike	Lanius Iudovicianus	G4	S3B	BLM	II - II shrublands
Long-billed Curlew	Numenius americanus	G5	S2B	BLM	I - II grasslands

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		Global	State	Federal	CFWCS
Common Name	Scientific Name	Rank	Rank	Status	Status Habitat
Birds (continued)					
McCown's Longspur	Calcarius mccownii	<u>G4</u>	S2B	BLM	II - III grasslands
Mountain Plover	Charadrius montanus	G2	S2B	BLM	I - III grasslands
Nelson's Sharp-tailed Sparrow	Ammodramus nelsoni	G5	S1B		I - I prairie wetlands
Northern Goshawk	Accipiter gentilis	G5	S3	USFS, BLM	II - I mixed conifer forest
Northern Hawk Owl	Surnia ulula	G5	S1		III - I conifer forest
Olive-sided Flycatcher	Contopus cooperi	G4	S3B		I - III early seral forest/shrub patches
Peregrine Falcon	Falco peregrinus	G4	S2B	USFS, BLM	II - III cliffs
Piping Plover	Charadrius melodus	G3	S2B	USFWS - T	I - III prairie lake and river shorelines
Red-headed Woodpecker	Melanerpes erythrocephalus	G5	S3B		II - II riparian forest
Sage Sparrow	Amphispiza belli	G5	S1S3B	BLM	III - III sagebrush
Sage Thrasher	Oreoscoptes montanus	G5	S3B	BLM	III - III sagebrush
Sedge Wren	Cistothorus platensis	G5	S1B	BLM	I - I prairie wetlands
Sprague's Pipit	Anthus spragueii	G4	S2B	BLM	II - III grasslands
Swainson's Hawk	Buteo swainsoni	G5	S3B	BLM	II - II sage/grassland w/ woody vegetation
Trumpeter Swan	Cygnus buccinator	G4	S2	BLM	I - III shallow lakes
Western Yellow-billed Cuckoo	Coccyzus americanus occidentalis	G5T3Q	S1S2B	USFWS - C	II - I riparian forest
White-faced Ibis	Plegadis chihi	G5	S1B	BLM	II - I wetland/lake w/ emergent vegetation
White-tailed Ptarmigan	Lagopus leucurus	G5	S3		II - III alpine
Whooping Crane	Grus americana	G1	S1M	USFWS - E	I - III wetlands
Yellow Rail	Coturnicops noveboracensis	G4	S1B	BLM	I - I wetlands
Yellow-billed Cuckoo	Coccyzus americanus (E. pop.)	G5	S3B		II - I prairie riparian forests
Reptiles					
Greater Short-horned Lizard	Phrynosoma hernandesi	G5	S3	USFS, BLM	II - II sandy/gravelly soils
Milk Snake	Lampropeltis triangulum	G5	S2	USFS, BLM	I - I rock outcrops
Northern Alligator Lizard	Elgaria coerulea	G5	S3		II - I talus/rock outcrops
Sagebrush Lizard	Sceloporus graciosus	G5	S3		II - II rock outcrops
Smooth Green Snake	Opheodrys vernalis	G5	S2		I - I wetlands
Snapping Turtle	Chelydra serpentina	G5	S3	BLM	I - I prairie streams and rivers
Spiny Softshell	Apalone spinifera	G5	S3	BLM	I - I prairie rivers & larger streams
Western Hognose Snake	Heterodon nasicus	G5	S2	USFS, BLM	I - I floodplain friable soils
Western Skink	Eumeces skiltonianus	G5	S3		II - I rock outcrops
Amphibians					
Coeur d'Alene Salamander	Plethodon idahoensis	G4	S2	USFS, BLM	I - I spring/seep, waterfall, fractured ro
Great Plains Toad	Bufo cognatus	G5	S2	USFS, BLM	II - I wetlands, floodplain pools
Idaho Giant Salamander	Dicamptodon aterrimus	G3	S1S3	USFS	 mountain streams, moist conifer for

		Global	State	Federal	CFWCS
Common Name	Scientific Name	Rank	Rank	Status	Status Habitat
Amphibians (continued)					
Northern Leopard Frog	Rana pipiens (Intermountain valleys)	G5	S1	USFS, BLM	I - I wetlands, floodplain pools
Plains Spadefoot	Spea bombifrons	G5	S3	USFS, BLM	II - I wetlands, floodplain pools
Western Toad	Bufo boreas	G4	S2	USFS, BLM	I - I wetlands, lakes, floodplain pools
Fish					
Arctic Grayling	Thymallus arcticus	G5	S1	USFWS - C	I - III mountain rivers, lakes
Blue Sucker	Cycleptus elongatus	G3G4	S2S3	BLM	I - III large prairie rivers
Bull Trout	Salvelinus confluentus	G3	S2	USFWS - T	I - III mountain streams, rivers, lakes
Columbia River Redband Trout	Oncorhynchus mykiss gairdneri	G5T4	S1	USFS	I - III mountain streams, rivers
Lake Trout (Native)	Salvelinus namaycush	G5	S2		I - I deep mountain lakes
Northern Redbelly X Finescale Dace	Phoxinus eos x Phoxinus neogaeus	HYB	S3	BLM	II - II small prairie streams
Paddlefish	Polyodon spathula	G4	S1S2	BLM	I - III large prairie rivers
Pallid Sturgeon	Scaphirhynchus albus	G1	S1	USFWS - E	I - II large prairie rivers
Pearl Dace	Margariscus margarita	G5	S2	BLM	I - I small prairie streams
Sauger	Sander canadensis	G5	S2	BLM	I - III large prairie rivers
Shortnose Gar	Lepisosteus platostomus	G5	S1	BLM	I - I large prairie rivers
Sicklefin Chub	Macrhybopsis meeki	G3	S1	BLM	I - II large prairie rivers
Spoonhead Sculpin	Cottus ricei	G5	S3		II - I mountain streams, rivers, lakes
Sturgeon Chub	Macrhybopsis gelida	G3	S2	USFS, BLM	I - II large prairie rivers
Torrent Sculpin	Cottus rhotheus	G5	S3		II - I mountain streams
Trout-perch	Percopsis omiscomaycus	G5	S2		I - I deep lakes, mountain streams
Westslope Cutthroat Trout	Oncorhynchus clarki lewisi	G4T3	S2	USFS, BLM	I - III mountain streams, rivers, lakes
White Sturgeon	Acipenser transmontanus	G4T1Q	S1	USFWS - E	I - III large mountain rivers
Yellowstone Cutthroat Trout	Oncorhynchus clarki bouvieri	G4T2	S2	USFS, BLM	I - III mountain streams, rivers, lakes

Invertebrates

Mollusks				
A Spring Snail	Pyrgulopsis bedfordensis	G1	S1	- springs
Alpine Mountainsnail	Oreohelix alpina	G1	S1	- limestone talus, alpine
Berry's Mountainsnail	Oreohelix strigosa berryi	G5T2	S1S2	- limestone talus
Bitterroot Mountainsnail	Oreohelix amariradix	G1G2	S1S2	- talus, dry conifer forests
Carinate Mountainsnail	Oreohelix elrodi	G1	S1	- talus, mixed mesic conifer forests
Gallatin Mountainsnail	Oreohelix yavapai mariae	<u>G4T1</u>	S1	- limestone talus
Humped Coin	Polygyrella polygyrella	<u>G3</u>	S1S3	 moist conifer forests
Keeled Mountainsnail	Oreohelix carinifera	G1	S1	- limestone, dry conifer forests
Lake Disc	Discus brunsoni	G1	S1	- talus, mesic conifer forests
Large-mantle Physa	Physa megalochlamys	G3	S1	- wetland/lake w/ emergent vegetation

		Global	State	Federal	CFWCS
Common Name	Scientific Name	Rank	Rank	Status	Status Habitat
Mollusks (continued)					
Lyre Mantleslug	Udosarx lyrata	G2	S1		- moist conifer forests
Magnum Mantleslug	Magnipelta mycophaga	G3	S1S3		 moist conifer forests
Marbled Jumping-slug	Hemphillia danielsi	<u>G2G3</u>	S1S3		 mesic/moist conifer forests
Pygmy Slug	Kootenaia burkei	G2	S1S2		 moist conifer forests
Robust Lancetooth	Haplotrema vancouvernese	G5	S1S2		 moist conifer forests
Rocky Mountain Capshell	Acroloxus coloradensis	G3	S1		- lakes
Rocky Mountain Duskysnail	Colligyrus greggi	G4	S1		 springs, cold mountain streams
Sheathed Slug	Zacoleus idahoensis	G3G4	S2S3		 mesic/moist conifer forests
Shortface Lanx	Fisherola nuttalli	G2	S1S2		- lakes
Smoky Taildropper	Prophysaon humile	G3	S1S3		 moist conifer forests
Striate Disc	Discus shimekii	G5	S1		- aspen
Crustaceans					
Glacier Amphipod	Stygobromus glacialis	<u>G1G3</u>	S1S2		- cave springs
A cave obligate Amphipod	Stygobromus montanensis	G1G2	S1S2		- cave springs
A cave obligate Amphipod	Stygobromus obscurus	G1G2	S1S2		- cave springs
A cave obligate Amphipod	Stygobromus puteanus	G1G2	S1S2		- cave springs
A cave obligate Amphipod	Stygobromus tritus	G1G2	S1S2		- cave springs
A cave obligate Isopod	Salmasellus steganothrix	G2G3	S1S2		- cave springs
A Crayfish	Pacifastacus gambelii	G4G5	S1		- mountain rivers
Insects					
Beetles					
Brown's Microcylloepus Riffle Beetle	Microcylloepus browni	G1	S1		- springs
Warm Spring Zaitzevian Riffle Beetle	Zaitzevia thermae	G1	S1	USFWS - C	- springs
Butterflies					
Alberta Fritillary	Boloria alberta	G3	S2S3		- alpine
Frigga Fritillary	Boloria frigga	G5	S1S2		- montane wetlands
Gillett's Checkerspot	Euphydryas gillettii	G2G3	S2		- wet meadows
Gray Comma	Polygonia progne	G5	S2		- parklands
Magdalena Alpine	Erebia magdalena	G5	S2		- alpine
Ottoe Skipper	Hesperia ottoe	G3G4	S2S3		- grasslands
Caddisflies					
A Caddisfly	Rhyacophila ebria	G2G3	S1		- mountain streams
A Rhyacophilan Caddisfly	Rhyacophila glacieri	G3	S1		- mountain/alpine streams
A Rhyacophilan Caddisfly	Rhyacophila newelli	<u>G2</u>	S2?		- mountain streams
Alexander's Rhyacophilan Caddisfly	Rhyacophila alexanderi	G2	S2		- mountain/alpine streams
An Agapetus Caddisfly	Agapetus montanus	G2	S2		- mountain/alpine streams

		Global	State	Federal	CFWCS	
Common Name	Scientific Name	Rank	Rank	Status	Status	Habitat
Insects (continued)						
Damselflies						
Last Best Place Damselfly	Enallagma optimolocus	G1G3Q	S1S3		-	wetlands
Subarctic Bluet	Coenagrion interrogatum	G5	S1S2		-	wetlands
Dragonflies						
Boreal Whiteface	Leucorrhinia borealis	G5	S1		-	wetlands
Brimstone Clubtail	Stylurus intricatus	G4	S1		-	large prairie rivers
Brush-tipped Emerald	Somatochlora walshii	G5	S1S2		-	wetlands
Eastern Ringtail	Erpetogomphus designatus	G5	S1		-	large prairie rivers
Subarctic Darner	Aeshna subarctica	G5	S1S2		-	wetlands
Western Pondhawk	Erythemis collocata	G5	S1S2		-	wetlands
Mayflies						
A Mayfly	Caenis youngi	G4	S2		-	sloughs/backwaters
A Mayfly	Homoeoneuria alleni	G4	S2		-	large prairie rivers
A Mayfly	Lachlania saskatchewanensis	G4	S1		-	large prairie rivers
A Mayfly	Macdunnoa nipawinia	G1G3	S2		-	large prairie rivers
A Mayfly	Raptoheptagenia cruentata	G4	S2		-	large prairie rivers
A Sand-dwelling Mayfly	Anepeorus rusticus	G1G2	S1		-	large prairie rivers
Springtails						
A Springtail	Oncopodura cruciata	G1G2	S1S2		-	caves
Stoneflies						
A Stonefly	Isocapnia crinita	G4	S2		-	alpine streams
A Stonefly	Isocapnia integra	G4	S2		-	alpine streams
A Stonefly	Isoperla petersoni	G5	S2		-	mountain streams
A Stonefly	Utacapnia columbiana	G4	S2		-	alpine streams
A Stonefly	Zapada cordillera	G3	S2		-	mountain streams
Meltwater Lednian Stonefly	Lednia tumana	G1	S1		-	alpine streams
Western Glacier Stonefly	Zapada glacier	G2	S1		-	alpine streams
Other - Spiders, Spong	es, Millipedes					
A cave obligate Harvestman	Cryptobunus cavicolus	G1G2	S1S2		-	caves
A Freshwater Sponge	Ephydatia cooperensis	G1G3	S1S3		-	lakes
A Millipede	Adrityla cucullata	G1G3	S1S3		-	dry mixed conifer forest clearings
A Millipede	Austrotyla montani	G1G3	S1S3		-	mixed conifer forests
A Millipede	Corypus cochlearis	G1G3	S1S3		-	mixed conifer forests
A Millipede	Endopus parvipes	G1G3	S1S3		-	subalpine mixed conifer forests
A Millipede	Lophomus laxus	G1G3	S1S3		-	mixed conifer forests
A Millipede	Orophe cabinetus	G1G3	S1S3			moist mixed conifer forests

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		Global	State	Federal	CFWCS	
Common Name	Scientific Name	Rank	Rank	Status	Status	Habitat
Other - Spiders, Spo	onges, Millipedes (continued)					
A Millipede	Orthogmus oculatus	G1G3	S1S3		-	mixed conifer forests
A Millipede	Taiyutyla curvata	G1G3	S1S3		-	moist mixed conifer forests

POTENTIAL SPECIES OF CONCERN

Vertebrates		Global	State	Federal	CFWCS	
Common Name	Scientific Name	Rank	Rank	Status		Habitat
Mammals						
Hayden's Shrew	Sorex haydeni	G4	S3S4		II - II	sagebrush/grasslands
Hoary Bat	Lasiurus cinereus	G5	S3S4		II - II	riparian and forest habitats
Hoary Marmot	Marmota calagata	G5	S3S4		I - I	alpine/subalpine meadow/rock outcrop
Idaho Pocket Gopher	Thomomys idahoensis	G4	S2S4		II - I	sagebrush/grasslands in deep soils
Silver-haired Bat	Lasionycteris noctivagans	G5	S3S4		II - II	riparian and forest habitats
Uinta Ground Squirrel	Spermophilus armatus	G5	S3S4		II - I	subalpine meadows
Wyoming Ground Squirrel	Spermophilus elegans	G5	S3S4		II - I	sagebrush/grasslands, rock outcrops
Yuma Myotis	Myotis yumanensis	G5	S3S4		II - II	riparian and mixed forest habitats
Birds						
American Three-toed Woodpecker	Picoides dorsalis	G5	S3S4		II - III	mixed conifer forests
Baltimore Oriole	Icterus galbula	G5	S3S4B		II - II	prairie riparian forests
Black-billed Cuckoo	Coccyzus erythropthalmus	G5	S3S4B		II - I	prairie riparian forests
Black-necked Stilt	Himantopus mexicanus	G5	S3S4B		III - II	wetlands
Chimney Swift	Chaetura pelagica	G5	S3S4B		III - I	human habitation
Clark's Grebe	Aechmophorus clarkii	G5	S2S4B		III - II	large lakes
Common Poorwill	Phalaenoptilus nuttallii	G5	S3S4B		III - I	open conifer woodlands
Eastern Screech-Owl	Megascops asio	G5	S3S4		III - II	prairie riparian forests
Great Blue Heron	Ardea herodias	G5	S3S4		III - III	riparian woodlands
Horned Grebe	Podiceps auritus	G5	S4		II - II	large lakes
Indigo Bunting	Passerina cyanea	G5	S2S4B		II - I	shrublands
Orchard Oriole	Icterus spurius	G5	S2S4B		III - II	prairie riparian forests
Ovenbird	Seiurus aurocapilla	G5	S3S4B		III - III	mixed conifer forests
Plumbeous Vireo	Vireo plumbeus	G5	S3S4B		-	conifer forest and riparian
Short-eared Owl	Asio flammeus	G5	S3S4		III - II	grasslands
Tennessee Warbler	Vermivora peregrina	G5	S2S4B		III - III	mixed conifer forests
Western Screech-Owl	Megascops kennicottii	G5	S3S4		III - III	western riparian forest
Williamson's Sapsucker	Sphyrapicus thyroideus	G5	S3S4B		II - III	mixed conifer forests
Fish						
Brassy Minnow	Hybognathus hankinsoni	G5	SU		III - I	small prairie rivers
Brook Stickleback	Culaea inconstans	G5	SU		III - III	small prairie rivers
Burbot	Lota lota	G5	SU		I - II	large rivers/lakes
Creek Chub	Semotilus atromaculatus	G5	SU		III - II	small prairie rivers
Iowa Darter	Etheostoma exile	G5	SU		III - I	small prairie rivers
Northern Red-bellied Dace	Phoxinus eos	G5	SU		III - II	small prairie rivers

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Common Name	Scientific Name	Global Rank	State Rank	Federal Status	CFWCS Status	Habitat
Fish (continued)				<u> </u>		
Plains Minnow	Hybognathus placitus	G4	SU		III - I	small & large prairie rivers
Pygmy Whitefish	Prosopium coulteri	G5	SU		III - III	lakes
Invertebrates						
Mollusks						
Fir Pinwheel	Radiodiscus abietum	<u>G4</u>	S2S3		-	moist conifer forests
Pale Jumping-slug	Hemphillia camelus	G4	S1S3		-	mesic/moist conifer forests
Reticulate Taildropper	Prophysaon andersoni	G5	S1S3		-	moist conifer forests
Threeridge Valvata	Valvata tricarnata	G5	S2S3		-	large coldwater rivers
Western Pearlshell	Margaritifera falcata	G4	S2S4		-	mountain streams/rivers
Insects						
Beetles Coppery Tiger Beetle	Cicindela cuprascens	G5	S3		_	sandy beaches
Sandy Tiger Beetle	Cicindela limbata	G5	S3		_	sandy sagbrush/grasslands
Butterflies						,,,
Astarte Fritillary	Boloria astarte	G5	S2S3		-	alpine
Colorado Alpine	Erebia callias	G5	S2S3		-	alpine
Eyed Brown	Satyrodes eurydice	G4	S2S3		-	wetlands
Freija Fritillary	Boloria freija	G5	S3S5		-	subalpine willows
Giant Sulfur	Colias gigantea	G5	S3		-	montane willows
Indra Swallowtail	Papillo indra	G5	S2S3		-	grasslands/rock outcrops
Labrador Sulfur	Colias nastes	G5	S2S3		-	alpine
Melissa Arctic	Oeneis melissa	G5	S2S3		-	alpine
Mormon Metalmark	Apodemia mormo	G5	S3S5		-	sagebrush/grasslands
Northern Marble	Euchloe creusa	G5	S1S3		-	subalpine forest openings
Red-disked Alpine	Erebia discoidalis	G5	S3S5		-	grasslands
Rockslide Checkerspot	Chlosyne whitneyi	G4G5	S3S5		-	alpine
Tawny Crescent	Phyciodes batesii	G4	S2S3		-	grasslands
White Admiral	Limenitis arthemis	G5	S2S3		-	riparian forest
White-veined Arctic	Oeneis bore	G5	S2S3		-	alpine
Damselflies						
Alkali Bluet	Enallagma clausum	G5	S2S4		-	wetland/lake w/ emergent vegetation
Arroyo Bluet	Enallagma praevarum	G5	S3S5		-	wetland/lake w/ emergent vegetation
Emma's Dancer	Argia emma	G5	S3S5		-	wetland/lake w/ emergent vegetation
Familiar Bluet	Enallagma civile	G5	S2S4		-	wetland/lake w/ emergent vegetation
Paiute Dancer	Argia alberta	G4	S2S3		-	wetland/lake w/ emergent vegetation
Prairie Bluet	Coenagrion angulatum	G5	S1S3		-	small prairie streams/wetlands

Common Nama	Colombia Nama	Global	State	Federal	CFWCS	
Common Name Insects (continued)	Scientific Name	Rank	Rank	Status	Status	Habitat
,						
Damselflies (continued) River Jewelwing	Calopteryx aequabilis	G5	S3S4		_	western slow and clear streams
Vivid Dancer	Argia vivida	G5	S3S5		_	wetland/lake w/ emergent vegetation
Dragonflies	7 ligia Vivida	30	0000			Welland, lake W. emergent regulation
Black-tipped Darner	Aeshna tuberculifera	G4	S2S4		_	wetland/lake w/ emergent vegetation
Blue-eyed Darner	Rhionaeshna multicolor	G5	S2S4		_	wetland/lake w/ emergent vegetation
California Darner	Rhionaeshna californica	G5	S3S5		_	wetland/lake w/ emergent vegetation
Chalk-fronted Corporal	Ladona julia	G5	S3S4		_	wetland/lake w/ emergent vegetation
Common Whitetail	Libellula lydia	G5	S3S5		_	wetland/lake w/ emergent vegetation
Crimson-ringed Whiteface	Leucorrhinia glacialis	G5	S3		_	wetland/lake w/ emergent vegetation
Eight-spotted Skimmer	Libellula forensis	G5	S3S5		_	wetland/lake w/ emergent vegetation
Flame Skimmer	Libellula saturata	G5	S2S4		_	wetland/lake w/ emergent vegetation
Horned Clubtail	Arigomphus cornutus	G4	S2S4		_	large prairie rivers
Hudsonian Emerald	Somatochlora hudsonica	G5	S2S4		-	wetland/lake w/ emergent vegetation
Lake Darner	Aeshna eremita	G5	S3S4		-	wetland/lake w/ emergent vegetation
Lance-tipped Darner	Aeshna constricta	G5	S1S3		-	wetland/lake w/ emergent vegetation
Mountain Emerald	Somatochlora semicircularis	G5	S3S5		-	wetlands
Ocellated Emerald	Somatochlora minor	G5	S2S4		-	wetland/lake w/ emergent vegetation
Plains Clubtail	Gomphus externus	G5	S2S4		-	large prairie rivers
Pronghorn Clubtail	Gomphus graslinellus	G5	S3S5		-	large prairie rivers
Red-veined Meadowhawk	Sympetrum madidum	G4	S2S3		-	wetland/lake w/ emergent vegetation
Ringed Emerald	Somatochlora albicincta	G5	S1S3		-	wetlands
Sedge Darner	Aeshna juncea	G5	S3S5		-	wetlands
Sinuous Snaketail	Ophiogomphus occidentis	G4	S2S4		-	large cold rivers
Spiny Baskettail	Epitheca spinigera	G5	S3S5		-	wetland/lake w/ emergent vegetation
Twelve-spotted Skimmer	Libellula pulchella	G5	S3S5		-	large prairie rivers
Zigzag Darner	Aeshna sitchensis	G5	S2S3		-	large prairie rivers
Mayflies						
A Sand-dwelling Mayfly	Analetris eximia	G2G4	S3		-	large prairie rivers
Lolo Mayfly	Caurinella idahoensis	G1G3	S3		_	small mountain streams
Sponges						
A Freshwater Sponge	Heteromeyenia baileyi	G5	S1S3		-	lakes

HABITAT ASSOCIATION SUMMARIES BY ANIMAL GROUP FOR SPECIES OF CONCERN AND POTENTIAL SPECIES OF CONCERN

Mammals	Birds
Sagebrush/Grassland. 38% Riparian Forest. 16% Conifer Forest. 11% Rock Outcrop. 11% Wetlands. 11% Alpine. 5% Other/Generalist. 5% Caves. 3%	Sagebrush/Grassland .27% Conifer Forest .15% Riparian Forest .15% Wetlands .15% Streams/Rivers/Lakes .13% Other/Generalist .10% Alpine .5%

Reptiles		Amphibians		
Rock Outcrop	22%	WetlandsStreams/Rivers/Lakes		

Fish	Invertebrates		
Mountain Streams/Rivers/Lakes44%	Streams/Rivers/Lakes29%		
Prairie Streams/Rivers/Lakes56%	Wetlands28%		
	Conifer Forest15%		
	Alpine6%		
	Caves6%		
	Other/Generalist5%		
	Rock Outcrop5%		
	Sagebrush/Grassland5%		
	Riparian Forest1%		
	Alpine 6% Caves 6% Other/Generalist 5% Rock Outcrop 5% Sagebrush/Grassland 5%		

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